

## Abstract

A method and apparatus is presented for detecting the presence of  
5 a packet being transmitted on a communications medium using self-  
correlation of samples taken from the communications medium. The method  
saves on power consumption by sampling the communications medium at a  
sampling rate that is lower than the sampling rate used for sampling the  
data in the packet. An unexpected result is achieved when packet detection  
10 performs better at the lower sampling rate than at the higher sampling rate.